

On page 19, at line 4, please delete "includes but is" and substitute in place thereof -- include but are --.

On page 20, at line 21, please delete "gangcyclovir" and substitute in place thereof -- gancyclovir --.

On page 27, at line 11, please delete "millipore" and substitute in place thereof -- MILLIPORE™ --.

**In the Claims:**

Please cancel claims 57, 58, and 55-58, without prejudice to inclusion of the subject matter of these claims in another patent application.

Please add claims 69-112, as follows.

69. An implantable container containing an isolated bone marrow stromal cell which comprises an expressible gene construct encoding a protein, wherein the container physically isolates the stromal cell from immune cells of an animal when the container is implanted in the animal, and wherein the container has pores for permitting diffusion between the interior and the exterior of the container.

70. The container of claim 69, wherein the gene construct encodes a secreted protein.

71. The container of claim 70, wherein the container has pores which permit diffusion of the protein between the interior and the exterior of the container.

72. The container of claim 69, wherein the container is implanted in an animal.

73. The container of claim 72, wherein the animal is a human.

74. The container of claim 73, wherein the human is afflicted with a disease, disorder, or condition characterized by a defect in a gene which encodes the protein in the human.

75. The container of claim 74, wherein the disease, disorder, or condition is selected from the group consisting of a growth hormone deficiency, diabetes, adenine deaminase deficiency, hemophilia A, hemophilia B, alpha-1-antitrypsin deficiency, Fabray disease, familial hypercholesterolemia, Gaucher's disease, Lesch-Nyhan Syndrome, maple syrup urine disease, ornithine transcarbamylase deficiency, phenylketonuria, Sandhoff disease, Tay-Sachs disease, von Willebrand disease, obesity, atherosclerosis, osteoporosis, AIDS, an autoimmune disease, a urea cycle defect, a branched chain organic aciduria, and galactosemia.

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76. The container of claim 69, wherein the protein is a growth hormone.

77. The container of claim 69, wherein the protein is obesity factor.

78. The container of claim 69, wherein the protein is granulocyte-macrophage stimulating factor.

79. The container of claim 69, wherein the protein is granulocyte colony stimulating factor.

80. The container of claim 69, wherein the protein is erythropoietin.

81. The container of claim 69, wherein the protein is interleukin-2.

82. The container of claim 69, wherein the protein is interleukin-1 receptor antagonist protein.

83. The container of claim 69, wherein the protein is insulin.
84. The container of claim 69, wherein the protein is Apo-A1.
- agonist. 85. The container of claim 69, wherein the protein is an estrogen
86. The container of claim 69, wherein the protein is an antibody.
- subunit. 87. The container of claim 69, wherein the protein is a collagen protein
88. The container of claim 69, wherein the protein is an antagonist of  
an autoimmune epitope.
89. The container of claim 69, wherein the protein is a glutaminase.
90. The container of claim 69, wherein the protein is a decarboxylase.
- deaminase. 91. The container of claim 69, wherein the protein is adenine
92. The container of claim 69, wherein the protein is lipoprotein lipase.
- glucosidase. 93. The container of claim 69, wherein the protein is acid beta-
94. The container of claim 69, wherein the protein is alpha-1-
- antitrypsin.
95. The container of claim 69, wherein the protein is factor VIII.

96. The container of claim 69, wherein the protein is factor IX.

97. The container of claim 69, wherein the container is a microencapsulate stromal cell.

98. The container of claim 69, wherein the container is a biocompatible matrix having the stromal cell incorporated therein.

99. The container of claim 69, wherein the container comprises a membrane having pores which have a diameter not greater than about 0.3 micrometers.

100. The container of claim 99, wherein the pores have a diameter not greater than about 0.25 micrometers.

101. The container of claim 99, wherein the pores have a diameter not greater than about 0.1 micrometers.

102. The container of claim 69, wherein the stromal cell comprises an expressible gene construct encoding a second protein.

103. The container of claim 102, wherein the second protein is an antibiotic-resistance protein.

104. The container of claim 102, wherein the expressible gene construct encoding the protein and the expressible gene construct encoding the second protein are the same gene construct.

105. The container of claim 69, wherein the stromal cell is a human stromal cell.

106. The container of claim 69, wherein the stromal cell is obtained from bone marrow.

107. The container of claim 69, containing at least  $10^4$  of the stromal cells.

108. The container of claim 69, containing from  $10^4$  to  $10^{11}$  of the stromal cells.

E1 109. A method of treating a animal afflicted with a disease, disorder, or condition characterized by a defect in a gene which encodes a protein in the animal, the method comprising implanting within the animal a container containing an isolated bone marrow stromal cell which comprises an expressible gene construct encoding the protein,

9 wherein the container physically isolates the stromal cell from immune cells of the animal, and

wherein the container has pores which permit diffusion between the interior and the exterior of the container.

110. The method of claim 109, wherein the protein is a secreted protein.

111. The method of claim 110, wherein the container has pores which permit diffusion of the protein between the interior and the exterior of the container.

112. A method of providing a protein to an animal, the method comprising implanting within the animal a container containing an isolated marrow stromal cell which comprises an expressible gene construct encoding the protein, wherein the container physically isolates the stromal cell from immune cells of the animal, and